

REMARKS

Upon entry of the present amendment, claims 1, 4 and 7- 9, 12-13 and 16-17 will remain pending in the above-identified application with claims 1, 4 and 7 standing ready for further action on the merits and claims 8-9, 12-13 and 16-17 remaining withdrawn from consideration based upon an earlier Restriction Requirement.

The present amendments to the claims do not introduce new matter into the application as originally filed. Specifically, the amendment to claim 1 finds support in original claims 3 and 6 and at paragraphs [0028] and [0029], and the resulting compounds in Examples 1-5 in the present specification (in the case that R represents a hydrogen atom).

Withdrawn claims 9 and 13 have also been amended herein to agree with values for M1, M2 and R that are recited in claim 1. (This has been done to help ensure proper rejoinder of the withdrawn claims once claim 1 is allowed.)

Additionally, withdrawn claims 10-11 and 14-15 have been canceled herein to avoid redundancies with amended withdrawn claims 9 and 13, and to also help ensure that all of the pending withdrawn method claims are of a proper scope for rejoinder once claim 1 is allowed by the USPTO.

Accordingly, entry of the instant amendment is respectfully requested at present, as is favorable action on the merits.

Restriction Requirement

Restriction to one of the following inventions was previously required under 35 USC § 121:

Group I. Claims 1-7; and

Group II. Claims 8-17.

Applicants affirm their election of November 5, 2007 of Group I (claims 1-7), and reserve their rights to file a divisional application on the non-elected claims 8-17, should such withdrawn claims not be rejoined upon allowance of claims 1-7 in the instant application (*see* MPEP § 821.04).

Claim Objection

Claims 2 and 5 have been objected due to alleged informality. Reconsideration and withdraw of the claim objection is respectfully requested based on the amendments made herein to the pending claims, and the fact that claims 2 and 5 are no longer pending in the application.

Claim Rejections - 35 USC § 112, Second Paragraph

Claims 1-7 have been rejected under the provisions of 35 USC § 112, second paragraph, as being indefinite for failing to particularly and distinctly claim the subject matter which applicant regards as the invention.

In response to the above rejection, it is noted that the claims as instantly amended clearly and distinctly set forth the inventive discovery of the present inventors, in accordance with the provisions of 35 USC § 112, second paragraph. As stated in M.P.E.P. §§ 2173.01 and 2173.02 :

A fundamental principle contained in 35 U.S.C. 112, second paragraph is that applicants are their own lexicographers. They can define in the claims what they regard as their invention essentially in whatever terms they choose so long as any special meaning assigned to a term is clearly set forth in the specification. See MPEP § 2111.01. Applicant may use functional language, alternative

expressions, negative limitations, or any style of expression or format of claim which makes clear the boundaries of the subject matter for which protection is sought. As noted by the court in In re Swinehart, 439 F.2d 210, 160 USPQ 226 (CCPA 1971), a claim may not be rejected solely because of the type of language used to define the subject matter for which patent protection is sought.

The examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. 112, second paragraph, is whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available. When the examiner is satisfied that patentable subject matter is disclosed, and it is apparent to the examiner that the claims are directed to such patentable subject matter, he or she should allow claims which define the patentable subject matter with a reasonable degree of particularity and distinctness. Some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire. Examiners are encouraged to suggest claim language to applicants to improve the clarity or precision of the language used, but should not reject claims or insist on their own preferences if other modes of expression selected by applicants satisfy the statutory requirement.

Accordingly, it is submitted that instantly pending claims 1, 4 and 7, that are currently under consideration, fully comply with the requirements of 35 USC § 112, second paragraph. Any contentions of the USPTO to the contrary must be reconsidered at present.

Obviousness-Type Double Patenting Rejection

Claims 1-7 have been rejected on the grounds of nonstatutory double patenting over claims 1-5 of US Patent 7,087,747. In reply to the rejection, the Applicants enclosed herewith is a 37 CFR § 1.321 terminal disclaimer over US Patent 7,087,747. (See MPEP § 804.02 II.)

Claim Rejections – 35 USC § 102(b) & 103(a)

Claims 1-7 have been rejected under the provisions of 35 USC § 102(b) over each **Yamasaki et al. EP '634** (EP 1004634 A2) and **Yamazaki et al. US '514** (US 6,093,514).

Claims 1-7 have been rejected under the provisions of 35 USC § 103(a) over each **Yamasaki et al. EP '634** (EP 1004634 A2) and **Yamazaki et al. US '514** (US 6,093,514).

Reconsideration and withdrawal of each of the above rejections is respectfully requested based on the following considerations.

Legal Standard for Determining Anticipation

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “When a claim covers several structures or compositions, either generically or as alternatives, the claim is deemed anticipated if any of the structures or compositions within the scope of the claim is known in the prior art.” *Brown v. 3M*, 265 F.3d 1349, 1351, 60 USPQ2d 1375, 1376 (Fed. Cir. 2001) “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsisssimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Legal Standard for Determining Prima Facie Obviousness

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally,

the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

“There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art.” *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (The combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a *prima facie* case of obvious was held improper.).

“In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification.” *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. “The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in

the art.” *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also *In re Lee*, 277 F.3d 1338, 1342-44, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002) (discussing the importance of relying on objective evidence and making specific factual findings with respect to the motivation to combine references); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The Supreme Court of the United States has recently held that the teaching, suggestion, motivation test is a valid test for obviousness, but one which cannot be too rigidly applied. See *KSR Int'l Co. v. Teleflex Inc.*, 127 SCt 1727, 82 USPQ2d 1385 (U.S. 2007). The Supreme Court in *KSR Int'l Co. v. Teleflex, Inc.*, *ibid.*, reaffirmed the Graham factors in the determination of obviousness under 35 U.S.C. § 103(a). The four factual inquiries under Graham are:

- (a) determining the scope and contents of the prior art;
- (b) ascertaining the differences between the prior art and the claims in issue;
- (c) resolving the level of ordinary skill in the pertinent art; and
- (d) evaluating evidence of secondary consideration.

Graham v. John Deere, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (U.S. 1966).

The Court in *KSR Int'l Co. v. Teleflex, Inc.*, *supra.*, did not totally reject the use of "teaching, suggestion, or motivation" as a factor in the obviousness analysis. Rather, the Court recognized that a showing of "teaching, suggestion, or motivation" to combine the prior art to meet the claimed subject matter could provide a helpful insight in determining whether the claimed subject matter is obvious under 35 U.S.C. § 103(a).

Even so, the Court in *KSR Int'l Co. v. Teleflex, Inc.*, *ibid.*, rejected a rigid application of the "teaching, suggestion, or motivation" (TSM) test, which required a showing of some

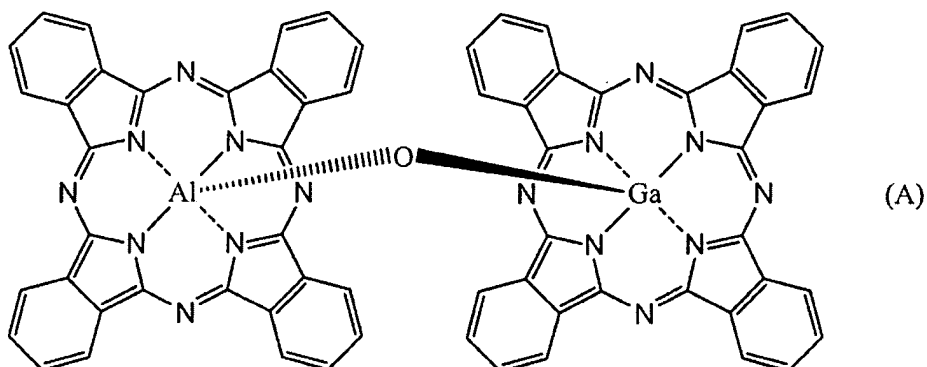
teaching, suggestion, or motivation in the prior art that would lead one of ordinary skill in the art to combine the prior art elements in the manner claimed in the application or patent before holding the claimed subject matter to be obvious.

Accordingly, while the courts have adopted a more flexible teaching, suggestion, motivation (TSM) test in connection with the obviousness standard based on the *KSR v. Teleflex* case, which case involved a mechanical device in a relatively predictable technological area, it remains true that, despite this altered standard, the courts recognize inventors face additional barriers in relatively unpredictable technological areas as noted in *Takeda Chemical Industries, Ltd. v. Alphapharm Pty., Ltd.*, 83 USPQ2d 1169 (Fed. Cir. 2007).

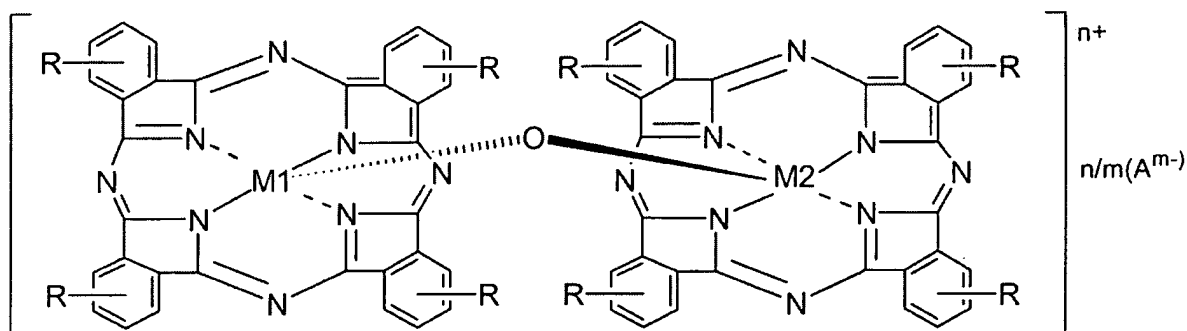
Further, the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336, quoted with approval in *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007).

Distinctions Over the Cited Art

The Yamasaki et al. references (US ‘514 and EP ‘634) are directed to μ -Oxo-aluminum/gallium phthalocyanine dimer having the following chemical structure:



The present invention is related to a μ -oxo bridged heterometal phthalocyanine compound having the following chemical structure.



(wherein M1 represents a metal atom selected from the group consisting of scandium, yttrium, aluminum, gallium and thallium, M2 represents a metal atom selected from the group consisting of titanium, vanadium and molybdenum.)

While both chemical structures may initially look same, they are nonetheless different from each other. The dimer compound of the Yamasaki et al. references is one wherein the

metal atoms M1 and M2 are both trivalent metal atoms. In contrast, claim 1 of the instant invention clearly stipulates that M2 represents a metal atom selected from the group consisting of titanium, vanadium and molybdenum. In this respect, Titanium is tetravalent metal atom, vanadium is pentavalent metal atom and molybdenum is hexavalent metal atom.

The Yamasaki et al. references neither suggest nor teach that the metal atom M2 is other than a trivalent metal atom. This noted difference in metal atoms M1 and M2 imparts the organic photo-receptor with excellent technical effects as a charge generation material, including excellent electric properties and photosensitivity; thus the species of M1 and M2 that are cited in instantly pending claim 1 are very important in the present invention and the advantageous properties that are possessed thereby. The Yamasaki et al. references are silent on any such metal combination of M1 (scandium, yttrium, aluminum, gallium and thallium) and M2 (titanium, vanadium and molybdenum).

Furthermore, the Yamasaki et al. references provide a mixed polymorph comprising the μ -oxo-aluminum/gallium phthalocyanine dimer, which is apparent from the specification of the present application. Comparative Example 1 of the present specification is titled "Synthesis of μ -oxo aluminum/gallium phthalocyanine dimer (A Method Described in Example 1 of Japanese Patent Kokai Publication No. 2000-219817)." The Japanese Patent Kokai Publication No. 2000-219817 corresponds to the Yamasaki et al. references being cited by the Examiner.

The resulting product of Comparative Example 1 was aluminum/gallium phthalocyanine dimer (PcAl-O-GaPc) in a form of mixed polymorph.

Thus, the instantly cited Yamasaki et al. references disclose a mixed polymorph containing aluminum/gallium phthalocyanine dimer (PcAl-O-GaPc). On the other hand, the μ -

oxo bridged heterometal phthalocyanine compound of the present invention is not a mixed polymorph.

The difference between the present invention and the Yamasaki et al. references (mixed polymorph) is based on the raw materials used in the preparation of the heterometal phthalocyanine compound. More specifically, the μ -oxo bridged heterometal phthalocyanine compound of the present invention is obtained by reacting a phthalocyanine having a halometal (III) as a central metal thereof with a phthalocyanine having an oxymetal (IV) as a central metal thereof. On the other hand, the mixed polymorph in the Yamasaki et al. references was prepared by reacting chlorogallium phthalocyanine (halometal phthalocyanine) and chloroaluminum phthalocyanine (halometal phthalocyanine). The halometal phthalocyanines have high reactivity. Using two different kinds of halometal phthalocyanines provides two different kinds of homometal phthalocyanine compounds, as well as a heterometal phthalocyanine compound. In contrast, the heterometal phthalocyanine of the present invention is not a mixed polymorph because it is produced by reacting a phthalocyanine having a halometal (III) as a central metal thereof with a phthalocyanine having an oxymetal (IV) as a central metal thereof.

Accordingly, it is submitted that the cited Yamasaki et al. references (US '514 and EP '634) are incapable of either anticipating or rendering obvious the instant invention as claimed, since the cited references do not teach or otherwise provide for each of the limitations recited in the pending claims under consideration (Claims 1, 4 and 7), and also fail to provide any reason or rationale to those of ordinary skill in the art that would allow them to arrive at the instant invention as claimed.

Any contentions of the USPTO to the contrary must be reconsidered at present.

Provisional Examiner Interview Request

Should the instant reply not result in an allowance of each of pending claims 1, 4 and 7 currently under consideration, the Examiner is respectfully requested to contact Mr. John W. Bailey (Reg. No. 32,881) in the Washington D.C. area at 703-205-8031, in order to schedule a personal interview at the Examiner's earliest convenience. It is submitted that such an interview would be valuable in helping to further prosecution of the instant application towards issuance of a Notice of Allowance, or alternatively, to further clarity and/or simplify outstanding issues for purposes of a future Appeal to the USPTO Board of Patent Appeals and Interferences.

CONCLUSION

Based upon the amendments and remarks presented herein, the Examiner is respectfully requested to issue a Notice of Allowance clearly indicating that each of pending claims 1, 4 and 7 are allowed and patentable under the provisions of Title 35 of the United States Code.

The Examiner is also respectfully requested to rejoin claims 8-9, 12-13 and 16-17 in accordance with the provisions of MPEP § 821.04.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John W. Bailey (Reg. No. 32,881) at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Application No. 10/516,884
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Docket No.: 0020-5324PUS1

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

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Enclosure: 37 CFR § 1.321 Terminal Disclaimer over US Patent 7,087,747.